

### REMARKS

This Amendment is in response to the Office Action mailed on March 26, 2008. Claims 1-16 were pending in that action, and the Examiner rejected all of the claims. With this Amendment, claims 1, 3, 12, and 16 are amended, claims 2 and 13-15 are cancelled, claim 17 is new, and the remaining claims are unchanged. Consideration and allowance of all pending claims are respectfully solicited in light of the following comments.

#### **35 USC §101 Rejections**

On page 2 of the Office Action, the Examiner rejected claims 12 and 16 under 35 USC §101 as being directed to non-statutory subject matter. Claims 12 and 16 are directed to a computer readable storage medium. The Examiner states that "computer-readable storage medium" can be interpreted as carrier waves and communication media, and that carrier waves and communication media are not statutory subject matter. Applicant respectfully contends that the Examiner is misreading the specification and that the claims are directed to statutory subject matter.

Page 6, lines 14-16, of the specification states that computer readable media includes computer readable storage media and communication media. Page 6, lines 21-26, states that computer readable storage media includes items such as flash memory, CD-ROM, DVD, magnetic tape, and other physical storage media. Page 6, line 29, to page 7, line 11, states that communication media includes modulated data signals such as carrier waves.

The specification makes it clear that computer readable storage media only includes physical devices. The non-physical items such as carrier waves are defined in the specification as communication media and the specification makes it clear that computer readable storage media are different than communication media. It is unreasonable given the explicit definitions of computer readable media, computer readable storage media, and communication media to contend that computer readable storage media includes a carrier wave.

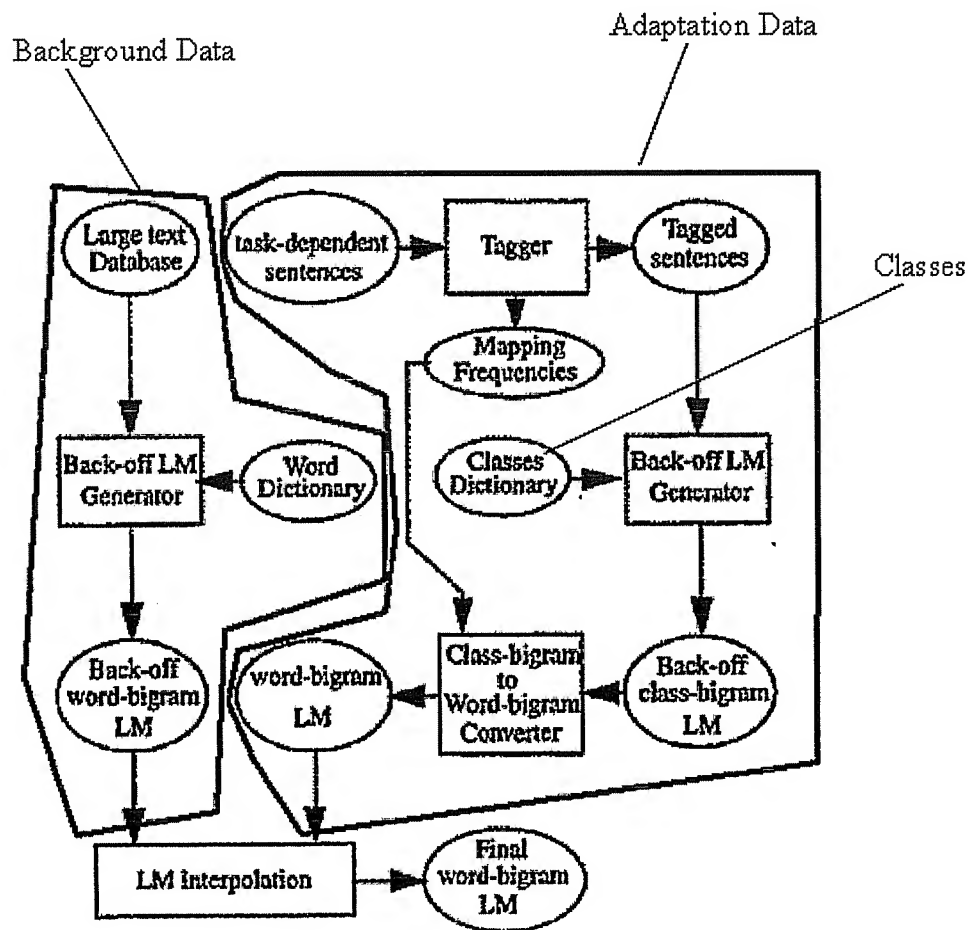
For at least the reasons listed above, Applicant respectfully contends that claims 12 and 16 are directed to statutory subject matter. Applicant respectfully requests that the rejections be withdrawn and the claims allowed.

### 35 USC §102 Rejections

#### Claim 1:

Claim 1 has been amended to include the limitations previously recited in its dependent claim 2. Both claims 1 and 2 were rejected under 35 U.S.C. §102 as being anticipated by Crespo "Language Model Adaptation for Conversational Speech Recognition using Automatically Tagged Pseudo-Morphological Classes" (hereinafter "Crespo"). Applicant respectfully contends that at least as amended, that claim 1 is not anticipated.

Claim 1 recites in part generating background n-gram class count data based on semantic entities and classes, and generating adaptation n-gram class count data based on semantic entities and classes. (Emphasis added.) Crespo Figure 2 shows the Crespo process. A marked-up version of that figure is below.



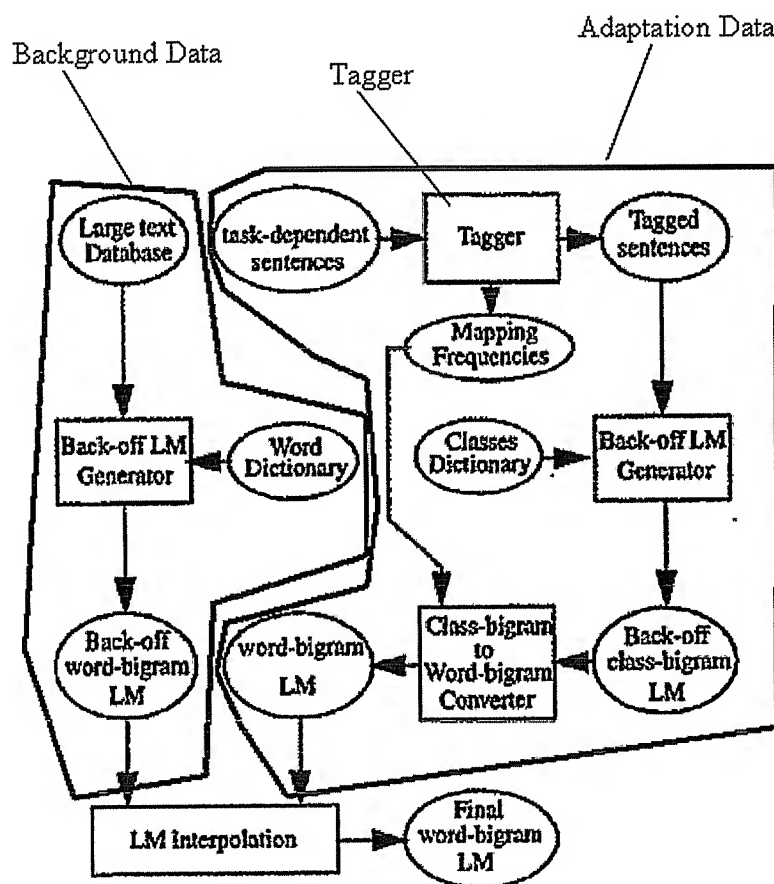
The left side of Crespo Figure 2 shows the background data process and the right side shows the adaption data process. The Crespo adaption data process includes classes and class-bigrams. However, the Crespo background data process does not use any classes. It only uses words and word-bigrams. Crespo clearly does not generate background n-gram class count data based on semantic entities and classes. To generate the class data for the background data, it would have to first use classes with the background data.

Claim 1 also recites "training a language model based on the background n-gram class count data and the adaptation n-gram class count data." Crespo Figure 2 and the supporting text show that the language model ("LM Interpolation") is trained by adaption data word-bigram and background data word-bigram. Crespo is not training the language model with two sets of class data as is recited in claim 1.

In order to reject a claim as being anticipated, a single reference must recite all elements of the claim. As discussed above, Crespo does not recite all elements of claim 1. Applicant therefore respectfully contends that claim 1 is not anticipated by Crespo. Applicant respectfully requests that the rejection be withdrawn and the claim allowed.

Claim 6:

Claim 6 recites in part wherein generating background n-gram class count data comprises tagging word level background data. On page 7 of the Office Action, the Examiner states that this limitation is anticipated by “tagger” in Crespo Figure 2. Another marked-up version of Crespo Figure 2 is below. It has the Crespo “Tagger” highlighted.



Crespo clearly does not tag background data. It only uses a tagger in connection with adaptation data. Because Crespo fails to disclose the claim 6 limitation, Applicant respectfully contends that claim 6 is not anticipated by Crespo. Applicant respectfully requests that the rejection be withdrawn and the claim allowed.

Claims 3-5 and 7-11:

Claims 3-5 and 7-11 are dependent upon independent claim 1. Applicant respectfully contends that these claims are patentable at least based on their dependence upon patentable independent claim 1. Applicant respectfully requests that the rejections be withdrawn and the claims allowed.

Claim 12:

Claim 12 has been amended to include the limitations previously recited in its dependent claims 13-15. On page 8 of the Office Action, the Examiner rejected claims 12-15 as being anticipated by Crespo. Applicant respectfully contends that amended claim 12 is not anticipated at least because the limitation previously recited in claim 15, and now in claim 12, is not anticipated.

The former claim 15 limitation recites in part “wherein training the language model comprises smoothing the n-gram relative frequencies.” On page 8 of the Office Action, the Examiner states that this limitation was anticipated because it is “within the scope of the reference.” In order to anticipate a claim, a single reference must explicitly or inherently disclose each element of the claim. Crespo does not show the language model training process as including smoothing the n-gram relative frequencies. It is also not inherent that the Crespo process include this limitation. Crespo could function without the limitation. Applicant respectfully contends that the former claim 15 limitation is not anticipated by Crespo and that the rejection was improper. Applicant respectfully requests that the rejection be withdrawn and the claim allowed.

Claim 16:

Claim 16 recites that smoothing the n-gram relative frequencies includes using a deleted interpolation algorithm. Similar to claim 15, in rejecting the claim on page 8 of the Office Action, the Examiner states that this limitation is within the scope of the reference. As discussed above in regard to claim 15, Applicant does not believe that smoothing the n-gram relative frequencies is anticipated by Crespo. Applicant certainly does not believe that the more narrow limitation of using a deleted interpolation algorithm to smooth the n-gram relative frequencies is anticipated by Crespo. Applicant respectfully requests that the rejection be withdrawn and the claim allowed.

Claim 17:

Claim 17 is a new dependent claim. It recites the limitations in claim 4 along with the limitations recited in claim 4's dependent claims 5-7. Claim 17 recites in part "tagging word level background data" and "tagging word level adaptation data." As discussed in regards to claim 6, Crespo only does tagging in association with one set of data which is the adaptation data. Crespo does not tag background data as is recited in claims 6 and 17. Crespo also does not tag two sets of data as is recited in claim 17. Crespo also does not provide motivation to tag the background data or to tag two sets of data. Applicant respectfully contends that claim 17 is patentable over Crespo, and respectfully requests that the claim be allowed.

**Conclusion**

It is respectfully submitted that claims 1, 6, 12, and 16-17 are patentably distinguishable over the cited reference. It is also respectfully submitted that claims 3-5 and 7-11 are patentable at least based on their dependence upon patentable independent claims. Accordingly, consideration and allowance of all pending claims are respectfully solicited. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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